

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE  
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method of providing an indication of an incoming  
5 call to a called station coupled to a telecommunications  
network, the called station having a data processing  
terminal engaged in a data call with a data communications  
network, the data call being through a connection in the  
10 telecommunications network to an access gateway for the  
data network, the method comprising the steps of:  
providing a signal advising of the incoming call  
from the access gateway, over the data call connection  
through the telecommunications network, to the data  
processing terminal; and  
15 generating by the data processing terminal,  
responsive to receiving the signal, an incoming call  
indication.
2. A method as claimed in claim 1, wherein the signal  
20 is a message including information relating to the incoming  
call.
3. A method of providing an indication of a message  
25 waiting at a voice messaging service to a called station  
coupled to a telecommunications network, the called station  
having a data processing terminal engaged in a data call  
with a data communications network, the data call being  
through a connection in the telecommunications network to  
an access gateway for the data network, the method  
30 comprising the steps of:  
providing, by the telecommunications network, an  
incoming call intended for the called station to a voice  
messaging service whereby the incoming call may record a  
message;  
35 providing a signal advising of the message waiting  
from the access gateway, over the data call connection

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through the telecommunications network, to the data processing terminal; and

generating by the data processing terminal, responsive to receipt of the signal, the message waiting  
5 indication.

4. A method as claimed in claim 3, wherein the signal is a message including information relating to the incoming call.

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5. A method as claimed in claim 4, wherein the message includes information relating to the recorded message.

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6. A method of disposing of an incoming call intended for a called station coupled to a telecommunications network, the called station having a data processing terminal engaged in a data call with a data communications network, the data call being through a connection in the  
20 telecommunications network to an access gateway for the data network, the method comprising the steps of:

holding call processing of the incoming call at a switching system in the telecommunications network;

providing a signal advising of the incoming call  
25 from the access gateway, over the data call connection through the telecommunications network, to the data processing terminal;

receiving from the data processing terminal, via the access gateway, instructions for disposing of the  
30 incoming call; and

continuing the call processing of the incoming call at the switching system according to the received instructions.

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7. A system for interconnecting a telecommunications network and a data communications network, comprising:

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one or more stations coupled to the telecommunications network, each station having a data terminal and a telephone terminal;

means for signalling information relating to the incoming call from the telecommunications network, via the telecommunications and data network gateways, over the data call connection to the data terminal of the particular calling station.

providing a message indicative of an incoming call to the called station via the data call;

disposing of the incoming call in response to the accepted message.

10. A method as claimed in claim 8 wherein the message indicative of an incoming call is a signalling system #7 message.

11. A method as claimed in claim 8 wherein the message indicative of an incoming call is an ISDN message.

12. A method as claimed in claim 8 wherein the message  
5 indicative of an incoming call is a call waiting indication.

13. A method as claimed in claim 8 wherein the message  
10 indicative of an incoming call is a voice message indication.

14. A method as claimed in claim 8 wherein the step of  
disposing of the incoming call includes forwarding the call  
to voice mail.

15. A method as claimed in claim 14 wherein the step  
of disposing of the incoming call includes playing an  
announcement to the calling party.

20 16. A method as claimed in claim 14 wherein the step  
of disposing of the incoming call includes forwarding the  
call to another line.

17. A method as claimed in claim 14 wherein the step  
25 of disposing of the incoming call includes sending a text  
message.

18. A method as claimed in claim 14 wherein the step  
of disposing of the incoming call includes answering the  
30 call using voice over the data call.

19. A method as claimed in claim 14 wherein the step  
of disposing of the incoming call includes terminating the  
data call and accepting the incoming call.

20. A method as claimed in claim 14 wherein the step of disposing of the incoming call includes parking the data call and accepting the incoming call.

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